



American Coating Technologies
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Product Technical Data

american coating technologies

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AM 3470SC Fluid Efficiency Epoxy

Product Description

AM 3470SC is a densely cross-linked 100% solids epoxy novolac that provides superior, long-term chemical resistance, good immersion service, designed to improve efficiency of pumps, pipes, valves and other fluid handling equipment while protecting them from the effects of erosion and corrosion. The outstanding adhesion properties of AM 3470SC Series make it ideal for use on marginally prepared substrates while delivering maximum performance. Extended re-coat window is also achievable due to the unique formulation package that provides outstanding inter-coat adhesion to previously epoxy-coated substrates.

Applications:

- High performance tank linings
- Secondary containment coating
- Internal pipeline and vessel coatings

Product Features & Benefits

- Long-term chemical resistance & corrosion protection
- Environmentally friendly, no VOC's
- Excellent chemical immersion service
- Outstanding adhesion
- Good flexibility to reduce coating stress due to expansion and contraction
- Plural & single-leg spray methods

Physical Properties:

Compressive Strength, 5 days ambient:

Test Method: ASTM C-109
Typical Value: 10,000 – 13,000 psi

Hardness, 3 days ambient Gloss Level:

Test Method: ASTM D-2240
Typical Value: 10,000 – 13,000 psi

PULL-OFF ADHESION (30 mils DFT bare steel)

Dry Adhesion, 5 days ambient:

Test Method: ASTM D-4541
Typical Value: >3,000 psi

Wet Adhesion, 5 days 70°C water:

Test Method: ASTM D-4541
Typical Value: >3,000 psi

Tabor Abrasion, CS-17 Wheel

1000 cycles / 1 kilogram:

Test Method: ASTM D-4060-95
Typical Value: 25 – 35 mg loss

Glass Transition Temperature:

Test Method: 58 – 62°C (ambient 5 days)
Typical Value: 72 – 75°C (heat cured)

Chemical Resistance:

- Resistant to all type of crude oil and refined petroleum products
- Good resistant to inorganic acids and alkalis

Consult with AMERICAN COATING Technical Service for additional information on immersion services especially where continuous heated immersion services >100°F are involved.

Handling Properties:

Mix Ratio, by volume:

3 parts Resin / 1 part Hardener

Color: Gray, Beige, Light Blue

Consistency: Flow able Liquid

Thinner: TH1710

Clean-Up: MEK or american Thinner

Surface Preparation:

For best adhesion properties, surfaces should be clean and free of any dirt, oils, greases, or salts prior to application. NACE-2, SSPC-PC-10 Near White with jagged profile of 2.5 – 3.5 mils. Recommended Total Dry Film Thickness (TDFT). 15 – 35 mils.

APPLICATION GUIDELINES:

Guidelines for Plural Component Spray Method:

Tip Size: .025 – .029 reversible type
Diameter of Part A Fluid Line: 1/2" ID
Diameter of Part B Fluid Line: 3/8" ID
Spray Line: 1/2" ID x 50 feet maximum
Diameter of Whip: 1/4 – 3/8" ID
Length of Whip: 20 feet
Power Ratio Pump: Graco 56:1 or greater
Static Mixer: 1/2" ID x 12" in length behind mixing valve

Part A Resin Temperature:

130 – 135°F in reservoir tank

Part B Hardener Temperature:

90 – 95°F in reservoir tank

Guidelines for Single-Leg or Hot Pot Application:

Part A resin and Part B hardener should be heated individually to 75 – 85 deg F before mixing so product will atomize properly in delivering paint to the substrate. Mixed product should be sprayed within 20 minutes after mixing.

Tip Size: 0.023 – 0.027

Pump Size: 56:1 or greater

Hose Length/Diameter: 50 ft x 3/8"

Whip Length/Diameter: 10 ft x 1/4"

Work Life, 4 gallons at 32°C (90°F):

20 minutes (No Thinner)

30 – 35 minutes (3 – 5% Thinner)

Tip Size: 0.023 – 0.027

Consult with American Coating representative before adding thinner to product or using hose lengths/diameters outside the stated recommendations.

Brush / Roller Application:

This material may be applied with brush or roller. Be aware of working life when using brush or roller application.

Storage:

Products should be stored in a cool, dry location that is well ventilated. Keep lids tightly closed on containers when not in use.

Store only in original containers. Keep away from direct sunlight and other sources of extreme heat.

Holding Primer Application:

To use as a Holding Primer, this product should be reduced with American thinner to achieve a dry film thickness of 3 – 5 mils on newly blasted steel. The amount of thinner is dependent on equipment and application temperature. Consult your AMERICAN COATING technical representative for recommendations on thinning. The minimum pump ratio should be 30:1. Refer to the Handling section for information on pot life. Tack-free time of a 5-mil coating is 5 – 8 hours depending on temperature, humidity, and amount of thinner used. The holding primer may be top coated with American Coating products within 21 days. AM 3470SC Holding Primer is packaged in a manner where up to 20% thinner may be added to the product in the original package with sufficient room in the container for thorough mixing of the hardener.

Cure Schedule:

Curing times are affected by the amount of air ventilation and circulation as well as the relative humidity level. Heat curing may be used to decrease return-to-service time and increase chemical resistance properties.

Temperature — 10°C (50°F):

To Touch: 8 – 10 hours

Hard Dry: 36 – 40 hours

Recoat Window: Up to 14 days

Temperature — 25°C (77°F):

To Touch: 3 – 4 hours

Hard Dry: 24 – 26 hours

Recoat Window: Up to 14 days

Temperature — 60°C (140°F):

To Touch: 1 – 2 hours

Hard Dry: 6 – 8 hours

Recoat Window: *Not recommended

*If an additional coat is required, surface must be abraded to create a slight profile to maximize adhesion.

Safety:

Mixes and applications of this product present a number of hazards. Read and follow the hazard information, precautions and first aid directions on the individual product labels and material safety data sheets before using. While all statements, technical information, and recommendations contained herein are based on information our company believes to be reliable, nothing contained herein shall constitute any warranty, express or implied, with respect to the products and/or services described herein and any such warranties are expressly disclaimed. We recommend that the prospective purchaser or user independently determine the suitability of our product(s) for their intended use. No statement, information or recommendation with respect to our products, whether contained herein or otherwise communicated, shall be legally binding upon us unless expressly set forth in a written agreement between us and the purchaser/user.